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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,392	08/24/2001	James Roberge	71416	3939

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EXAMINER
VO, HUYEN X

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/939,392	ROBERGE ET AL.
	Examiner	Art Unit	
	Huyen X Vo	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 April 2005_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _24 August 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _1/30/2002_.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant has submitted an amendment filed 4/18/2005 arguing to traverse the

art rejection based on arguments regarding *"Ryan suggests no constraints with respect*

to the nature or form of that narrative entry nor does Ryan offer any thoughts with

respect to conducting speech recognition in a successful manner. Such details are left

to the imagination of the reader" (Amendment page 7). Applicant goes on arguing

"whereas in the present case concerns regarding the accuracy, speech, and ease-of-

use that typically surround speech recognition are important issues" (Amendment page

8). Applicant's arguments have been fully considered but they are not persuasive.

Ryan (US 5809476) full anticipates at least all the features claimed in the independent

claims *(referring to claim rejection)*. Nowhere in the claim language mentions anything

about the nature of narrative entry in term of accuracy, speed, and ease-of-use nor the

claim language indicates the level of success/accuracy of the speech recognizer. In

fact, as long as there is input supplied to the system, either in the form of speech or text,

the system processes and analyzes the input signal in accordance with predetermined

method/algorithm embedded within the system.

2.   Applicant also argues *"Ryan makes no provision for commands of any type and*

in particular has no navigational commands as described" (Amendment page 9-10).

Applicant, however, does not address how the prior art of record fails to teach this

limitation. In fact, Ryan does teach an input step for the user to input speech/text to

populate a database (*figures 1-2*). Applicant is advised to clearly define "navigational

commands" and specifies their functionality within the system.

3.   For reasons stated above, previous grounds of rejection are maintained.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

5.   Claims 1, 3-4, 8-9, and 11-15 are rejected under 35 U.S.C. 102(e) as being

anticipated by Ryan (US Patent No. 5809476).

6.   Regarding claim 1, Ryan discloses a method for populating a main database

from speech recognition output based on verbal utterances of a user, said method

comprising:

       a) developing a series of contexts, each context comprising a series of

navigational commands for populating a selected series of data items of the main

database, and each context represented by a context identifier (*col. 3, ln. 21-35*);

b) creating a word-mapping database for each context, said word-mapping database containing a words drawn from narrative statements (written and oral) associated with the data items in the selected context, as well as linkages between these words and data items (*col. 3, ln. 50 to col. 4, ln. 8*);

c) identifying a selected context by comparing the context identifier of the selected context with speech recognition output generated based on a context-identifying verbal utterance of the user (*col. 3, ln. 4-14 and col. 4, ln. 9-49*);

d) recording selected data items within the selected context by mapping the speech recognition output generated based on utterances of the user to data items in the main database using the word-mapping database for the selected context (*col. 3, ln. 4-14 and col. 5, ln. 1-28*); and

e) repeating steps c) and d) until the user finishes entering data, thereby populating the main database (*the operation of figures 1-3 is a continuous process*).

7.   Regarding claim 8, Ryan discloses a method for populating a main database from speech recognition output based on verbal utterances of a user, comprising:

a) defining a workflow for populating a selected set of data items in the main database, each workflow providing custom knowledge comprising a series of navigational commands and a context identifier for associating spoken utterances with explicitly coded data relating to the workflows (*col. 3, ln. 21-35*);

b) identifying the workflow being employed (*col. 3, ln. 4-14 and col. 4, ln. 9-49*);

c) creating a word-mapping database for each workflow (*col. 3, ln. 50 to col. 4, ln. 8*); and

d) populating the selected series of data items for the identified workflow using the series of navigational commands and comparing speech recognition output generated based on the verbal utterances of the user to obtain words and explicitly coded data for populating the main database (*col. 3, ln. 4-14 and col. 5, ln. 1-28, the selected data are stored in the database for later interrogation or analysis*).

8.   Regarding claim 13, Ryan discloses a system for populating a main database from speech recognition output based on verbal utterances of the user, comprising:

a context identifier for establishing a workflow for information processing of a series of navigational commands for populating a selected series of data items in the main database (*col. 3, ln. 21-35*);

a word-mapping database created for each context identifier comprising words of possible entries of the data items in the context (*col. 3, ln. 50 to col. 4, ln. 8*);

a processor for comparing information from the context identifier with speech recognition output generated based on a context-identifying utterance of the user (*col. 3, ln. 4-14 and col. 4, ln. 9-49*);

a memory device associated with the main database for populating the selected series of data items for the selected context of the context identifier using the series of navigational commands and the speech recognition output (*col. 3, ln. 4-14 and col. 5, ln.*

1-28, computer system must includes RAM and/or ROM).

9.   Regarding claims 3-4 and 11, Ryan further discloses the method of claims 1 and

8, wherein the main database is a medical records database and the series of contexts

are developed based on completion of data entry for generation of a medical report (*col.*

6, In. 35 to col. 7, In. 45), and wherein speech recognition output is mapped to data

items in the selected context using a word-mapping database that includes a set of

designated keywords representing spoken phrases for populating data items and by

comparing speech recognition output to these keywords (*col. 3, In. 50 to col. 4, In. 50*).

10.   Regarding claim 9, Ryan further discloses a method as recited in claim 8,

wherein the defining of the workflows comprises developing a series of contexts for

populating the selected data items in the main database with each context being

represented by the context identifier (*col. 4, In. 51-67, "code snippits" are identifiers for*

different contexts).

11.   Regarding claim 12, Ryan further discloses a method as recited in claim 8,

wherein the defined workflows use the context identifier to provide metrics for scoring

the selected context's speech recognition output based on the context-identifying verbal

utterance of the user (*col. 4, In. 51-67, "code snippits" are identifiers for different*

contexts).

12.   Regarding claim 14, Ryan further discloses a system as recited in claim 13,

wherein processor identifies the selected context associated with the context identifier

using metrics for comparing the context identifier with the speech recognition output for

generating scores associated with the context-identifying verbal utterance of the user

(*col. 4, In. 36-67, "code snippets" are identifiers*).

13.   Regarding claim 15, Ryan further disclose the step of employing a speech

recognition system to interpret the input speech (*col. 3, In. 4-14*), but fails to specifically

disclose that the processor employs multi-level scoring for generating the speech

recognition output. However, the examiner takes official notice that multi-level scoring

speech recognition output is well known in the art. The advantage of this is to enhance

speech recognition accuracy.

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

15.   Claims 2, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ryan (US Patent No. 5809476) in view of Zhilyaev (US Patent No. 6137911).

16.   Regarding claim 6, Ryan fails to specifically disclose the method of claim 4,

wherein the word mapping is performed by calculating the number of keywords in a

phrase that match speech recognition output, by calculating the ratio of keywords in a

phrase that match speech recognition output to the total keywords in a phrase, or by

performing a string comparison algorithm.   However, Zhilyaev teaches that the word

mapping is performed by calculating the number of keywords in a phrase that match

speech recognition output (*equation 8 in col. 8*), by calculating the ratio of keywords in a

phrase that match speech recognition output to the total keywords in a phrase, or by

performing a string comparison algorithm (*col. 11, ln. 64 to col. 12, ln. 5*).

    Since Ryan and Zhilyaev are analogous art because they are from the same field

of endeavors, it would have been obvious to one of ordinary skill in the art at the time of

invention to modify Ryan by incorporating the teaching of Zhilyaev in order to enhance

the classification accuracy by determining if input belongs to a certain cluster or group.

17.   Regarding claims 2 and 10, Ryan further discloses the method of claims 1 and 8,

wherein the series of contexts and word-mapping databases are developed using a

hierarchically-organized database representation based on knowledge regarding the

relationship of data items in the main database, said hierarchically-organized database

representation having a plurality of nodes capable of having further related nodes,

fields, or attributes (*col. 6, ln. 12-32, nodes, fields, or attributes are sub-categories or

sub-group within a classification. This is inherent in hierarchical database*).

18.   Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ryan (US Patent No. 5809476) in view of Zhilyaev (US Patent No. 6137911) and further

in view of Li (US Patent No. 5774588).

19.   Regarding claim 5, Ryan fails to disclose the method of claim 4, wherein speech

recognition output is compared to the words of the word-mapping database by: a)

calculating the number of keywords in a phrase that match speech recognition output to

generate a keyword match number; b) prioritizing phrases with identical keyword match

numbers by calculating the ratio of keywords in a phrase that match speech recognition

output to the total keywords in a phrase to generate a keyword match ratio; and c)

prioritizing phrases with identical keyword match ratios by performing a string

comparison algorithm.

However, Zhilyaev teach that the speech recognition output is compared to the

words of the word-mapping database by: a) calculating the number of keywords in a

phrase that match speech recognition output to generate a keyword match number (col.

11, In. 30 to col. 12, In. 67); b) prioritizing phrases with identical keyword match

numbers by calculating the ratio of keywords in a phrase that match speech recognition

output to the total keywords in a phrase to generate a keyword match ratio (col. 11, In.

30 to col. 12, In. 67).

Since Ryan and Zhilyaev are analogous art because they are from the same

field of endeavors, it would have been obvious to one of ordinary skill in the art at the

time of invention to modify Ryan by incorporating the teaching of Zhilyaev in order to

enhance the classification accuracy by determining if input belongs to a certain cluster or group.

The modified Ryan still fails to specifically disclose the step of c) prioritizing phrases with identical keyword match ratios by performing a string comparison algorithm. However, Li teaches the step of prioritizing phrases with identical keyword match ratios by performing a string comparison algorithm (*col. 10, ln. 1-10*).

Since the modified Ryan and Li are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Ryan by incorporating the teaching of Li in order to enhance the comparison accuracy.

20.   Regarding claim 7, the modified Ryan fails to specifically disclose the method of claim 6, wherein the string comparison algorithm comprises the Edit Distance method. However, Li teaches that the string comparison algorithm comprises the Edit Distance method (*col. 10, ln. 1-10*).

Since the modified Ryan and Li are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Ryan by incorporating the teaching of Li in order to enhance the comparison accuracy.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Huyen X Vo whose telephone number is 571-272-7631.

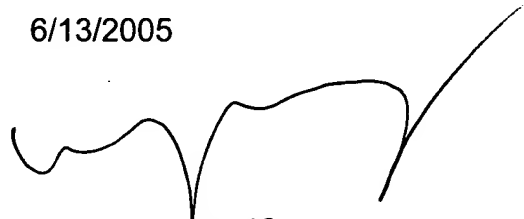The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HXV

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6/13/2005

W. R. YOUNG
PRIMARY EXAMINER